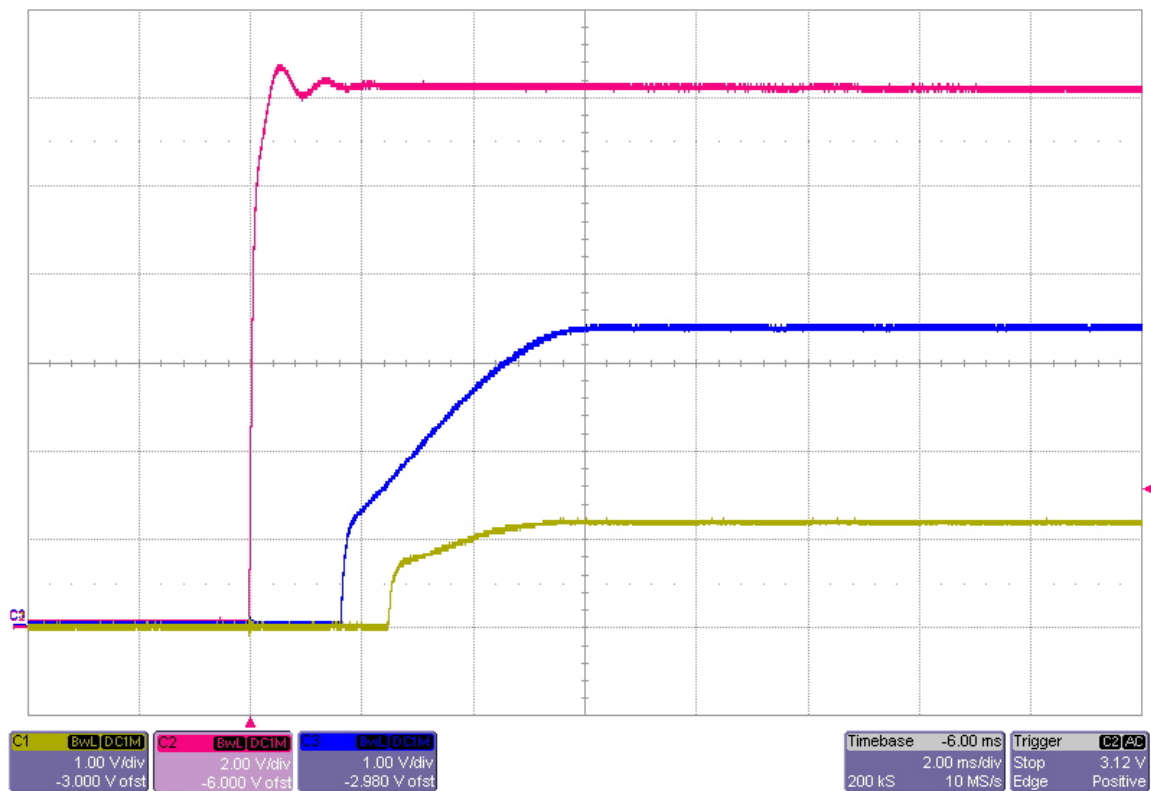


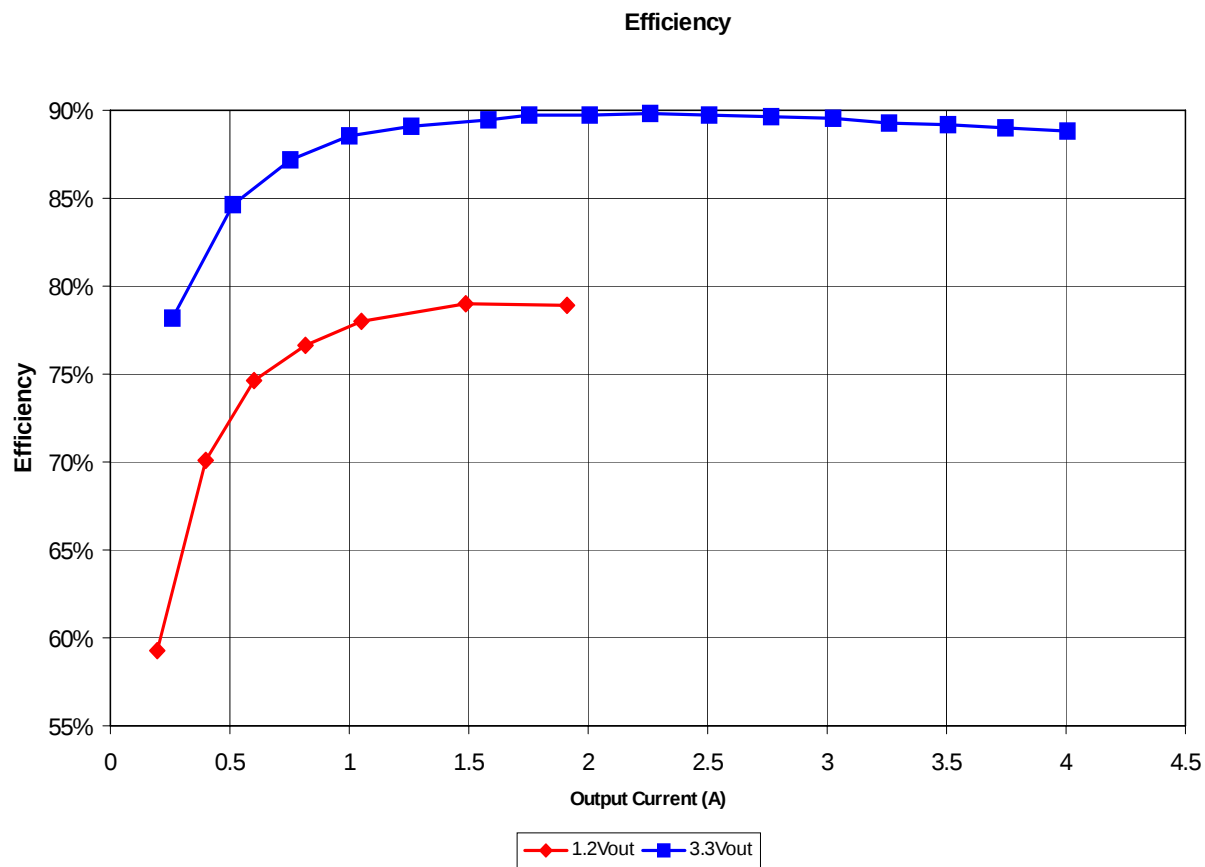
1 Startup

The 3.3V and 1.2V output voltage startup waveforms are shown in the figure below after the application of V_{in} . The input voltage was set to 12V and the outputs were at no load.



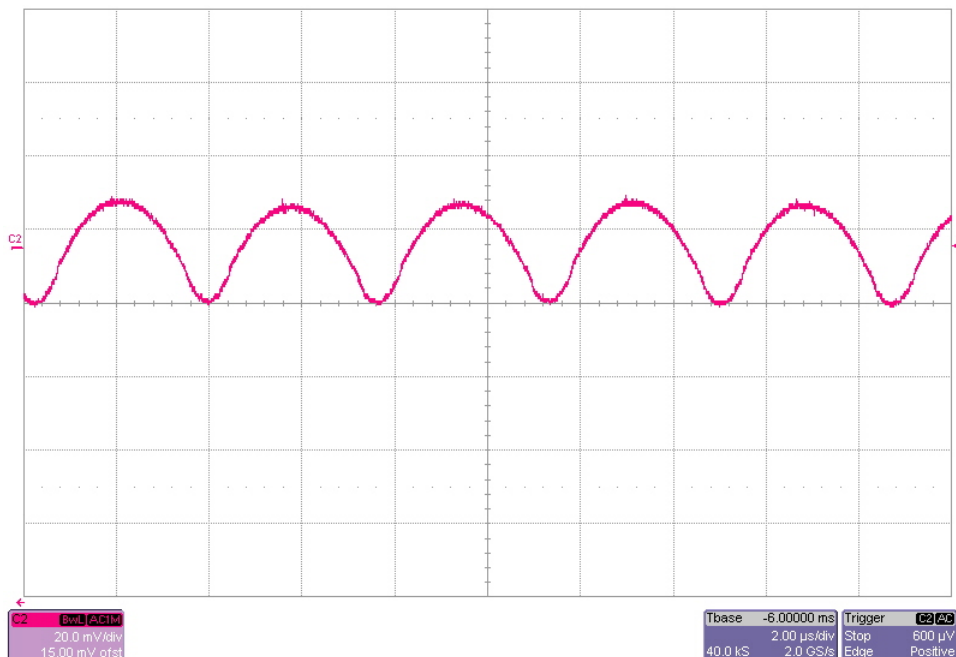
2 Efficiency

The converter efficiency is shown in the figure below. Each converter was enabled independently.
 $V_{in} = 12V$.

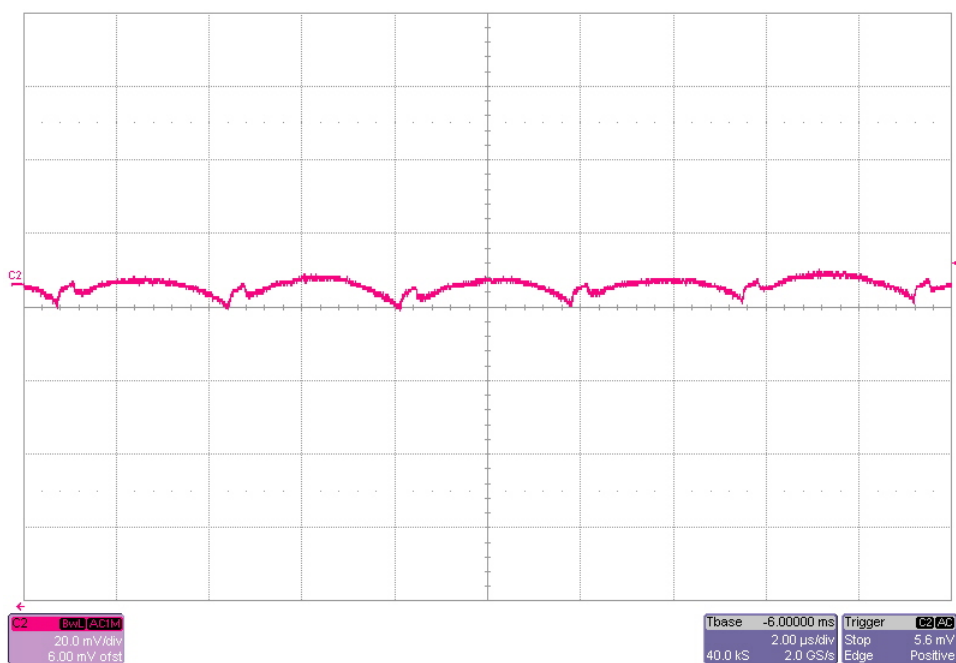


3 Output Ripple Voltage

The 3.3V output ripple voltage is shown in the figure below. The image was taken with the output loaded to max. $V_{in} = 15V$ (20mV/DIV, 2uS/DIV)

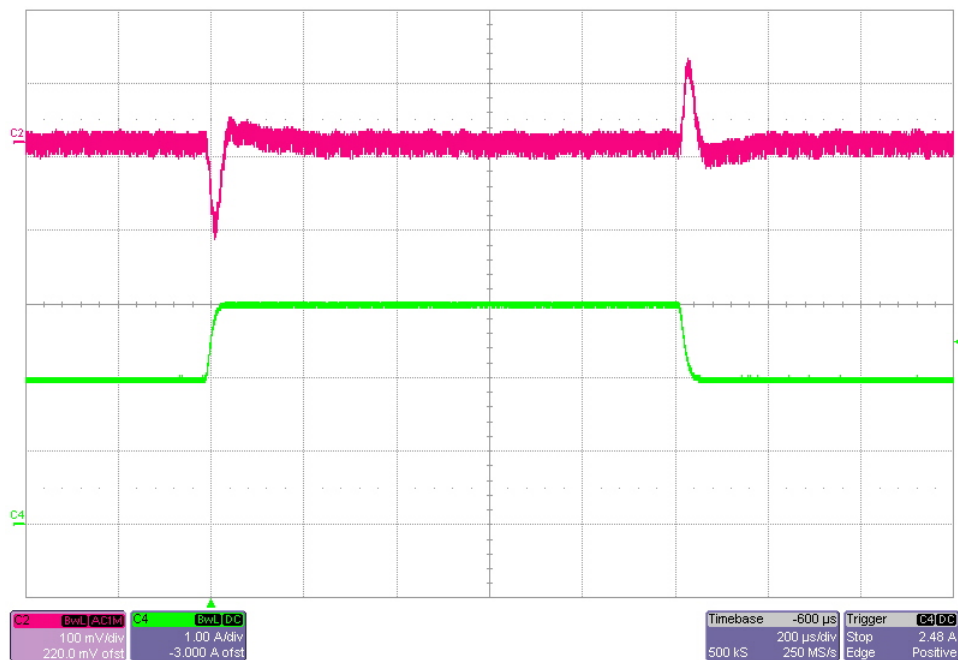


The 1.2V output ripple voltage is shown in the figure below. The image was taken with the output loaded to max. $V_{in} = 15V$ (20mV/DIV, 2uS/DIV)

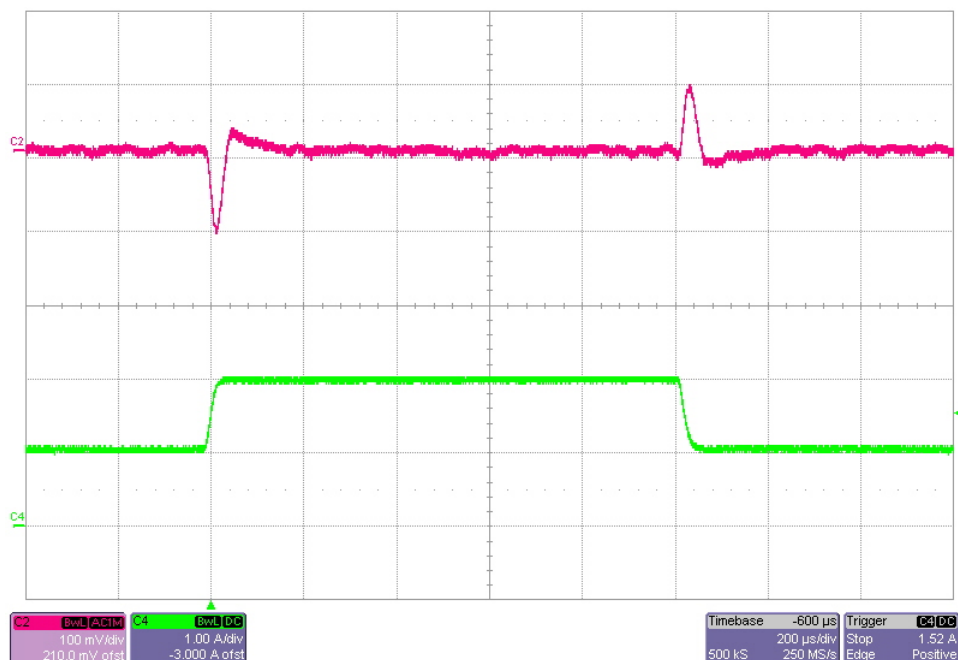


4 Load Transient Response

The photo below shows the 3.3V_{out} response to a 2A to 3A step load. $V_{in} = 15V$.
(100mV/DIV, 1A/DIV, 200uS/DIV)



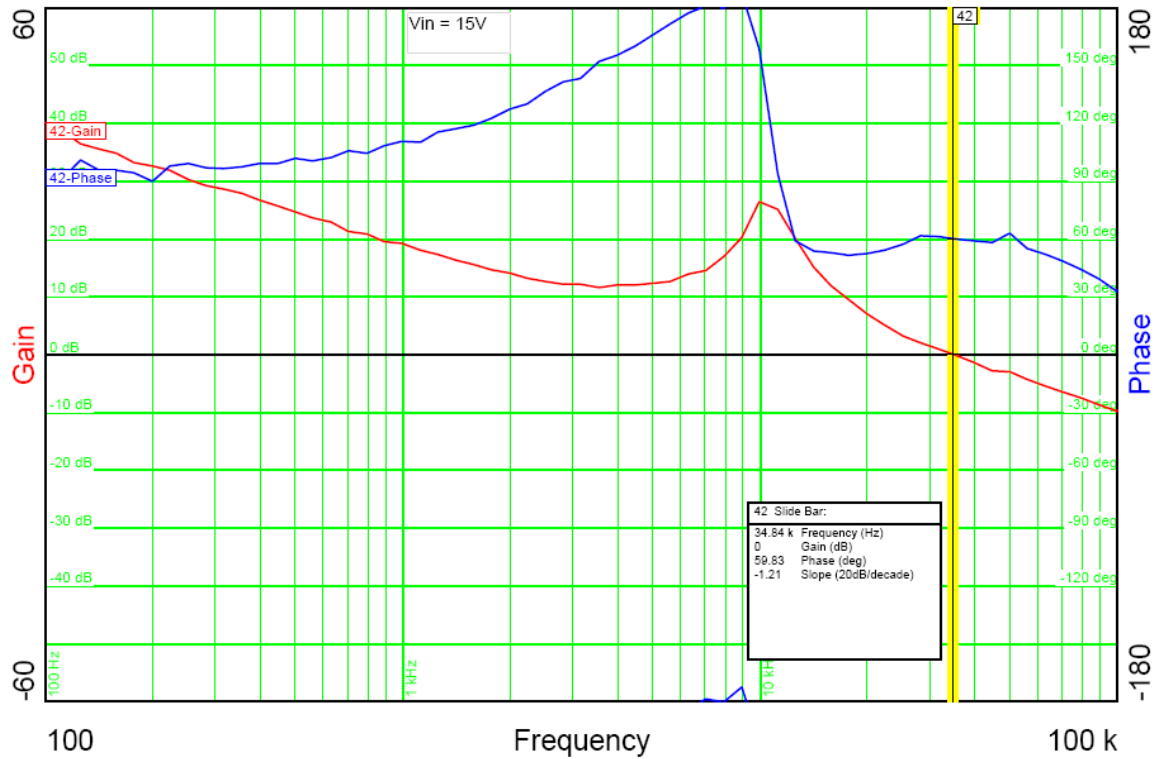
The photo below shows the 1.2V_{out} response to a 1A to 2A step load. $V_{in} = 15V$.
(100mV/DIV, 1A/DIV, 200uS/DIV)



5 Loop Gain / Stability

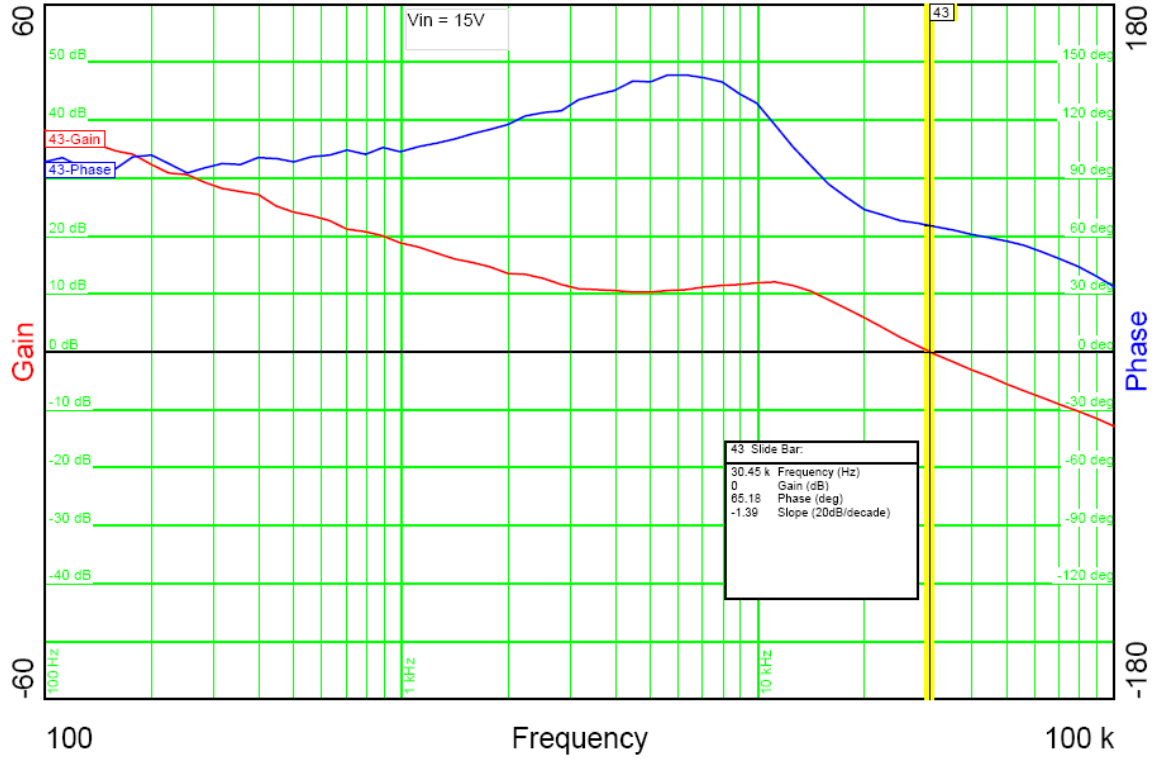
The plot below shows the 3.3V converter closed loop gain and phase margin. $V_{in} = 15V$, $I_{out} = 4A$ load

Band Width = 35KHz, Phase Margin = 60 degrees



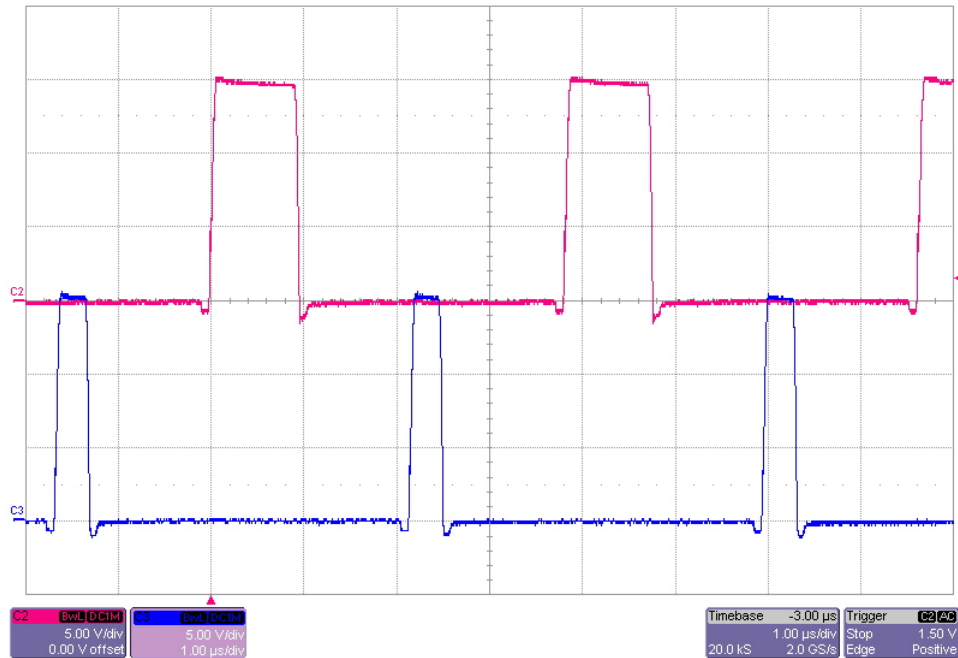
The plot below shows the 1.2V converter closed loop gain and phase margin. $V_{in} = 15V$, $I_{out} = 2A$ load

Band Width = 30KHz, Phase Margin = 65 degrees

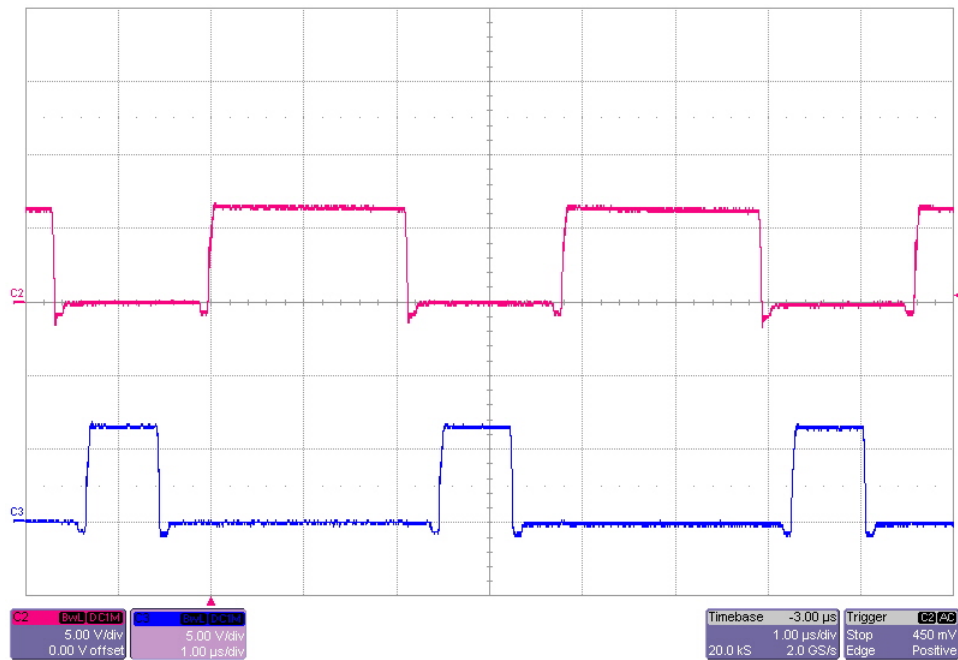


6 Switch Node Waveform

The photo below shows the 3.3 and 1.2V switch node waveforms. $V_{in} = 15V$. Outputs are at max loads. (5V/DIV, 1uS/DIV)



The photo below shows the 3.3 and 1.2V switch node waveforms. $V_{in} = 6.5V$. Outputs are at max loads. (5V/DIV, 1uS/DIV)



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